

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Cooper on 03/09/2011.

3. The application has been amended as follows:

In claim 6, line 5, after "the keyboard actually", please

delete [comprising] and insert – **is of** –

In claim 43, line 7, after "the keyboard actually", please

delete [comprising] and insert – **is of** –

In claim 53, line 8, after "the keyboard actually", please

delete [comprising] and insert – **is of** –

End of amendment.

**Allowable Subject Matter**

4. Claims 6, 9, 10, 25, 28, 29, 32, 33, 35, 43, 45-47 and 50-56 are allowed.
5. The following is an examiner's statement of reasons for allowance:

The invention is directed to solving a problem that a person intended to input foreign language characters using a foreign keyboard, but the person is not familiar with the foreign keyboard layout (**Spec. [38-39], the user wants to input Hindi, but he is not familiar with the Hindi keyboard layout**). The person types by assuming the keyboard is in his familiar layout (**Spec. [38-39], typing text by assuming the keyboard is in a US English keyboard layout**). A phonetic mapping engine maps a keystroke sequence typed according to the assumed keyboard layout into another keystroke sequence as if the text is inputted according to the actually unfamiliar foreign keyboard layout (**Fig. 5, Spec. [13], [36]**).

Independent claim 1 recites:

"receiving a text string in a first alphabet on a keyboard, the text string inputted as a first keystroke typing sequence according to a first keyboard layout of the first alphabet (**Note: corresponding to Spec. [37], e.g., typing according to English keyboard layout**), but the keyboard actually comprising a second keyboard layout of a second alphabet (**Note: corresponding to Fig. 3c, Spec. [38], actually typing using**

**a physical keyboard with Hindi layout**), the second keyboard layout different from the first keyboard layout such that the text string is not inputted as a second keystroke typing sequence according to the second keyboard layout, the first keystroke typing sequence different from the second keystroke typing sequence; and

converting the text string in the first alphabet to a second text string in the second alphabet via a phonetic mapping scheme between the first alphabet and the second alphabet (Note: corresponding to Fig. 5 and Fig. 6), such that the second text string corresponds to the second keystroke typing sequence, the phonetic mapping scheme configured to map respective characters of the second alphabet to one or more characters of the first alphabet.”

Dayar et al. (US PG Pub. 2005/0138209) discloses an administrator using a client computer to control remote computers, The remote computers may have different keyboard layouts and languages (**Dayar, fig. 1, [0006-0008]**). Dayar discloses typing a command on the client computer using a local keyboard (e.g. US English keyboard) and the inputted keystrokes are mapped to a remote keyboard (e.g., a French keyboard) (**Dayar, fig. 3, [0006-0008], [0019-0021]**). Dayar types according to English keyboard layout and using English keyboard. Dayar does not disclose the keyboard actually comprises a second keyboard layout (**e.g., French**). Dayar defines key mapping schemes between different languages based on key positions (**Dayar, [0022-0032]**), Dayar does not disclose mapping is based on a phonetic mapping scheme. Dayar fails to disclose above underlined limitations.

Janakiraman et al. (US Patent 7,369,986) discloses transliteration of an Indian language script into English alphabet (**Janakiraman, fig. 4A-4E, Fig. 5A-5C, fig 8**). Janakiraman does not disclose inputting the Indian language on an Indian language keyboard but typing according to an English keyboard layout. Janakiraman fails to disclose above underlined features.

Mani et al. (US PG Pub. 2003/0195741) discloses representing Indian language scripts using English alphabet and inputting on an English keyboard (**Mani, Fig. 1-4, [0003], [0016-0018]**). Mani does not disclose inputting the Indian language on an Indian language keyboard layout (i.e., a second keyboard layout) but typing according English keyboard layout (i.e., a first keyboard layout). Therefore, Mani fails to disclose above underlined features.

Prior art of record, either alone or in combination, does not teach or suggest above underlined limitations, therefore, fails to anticipate or render obvious the claimed invention.

Independent claims 43 and 53 recite features similar to that in claim 6. Therefore, claims 43 and 53 are allowed.

Dependent claims 9, 10, 25, 28, 29, 32, 33 and 35 depend from claim 6 and further limit claim 6. Therefore, these dependent claims are allowed.

Dependent claims 45-47 and 50-52 depend from claim 43 and further limit claim 43. Therefore, these dependent claims are allowed.

Dependent claims 54-56 depend from claim 53 and further limit claim 53. Therefore, these dependent claims are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Natoli, Anthony James Franci (US 20020130844 A1) : Virtual reality keyboard system and method.

- Holloway, Lane Thomas et al (US 20040066374 A1) : Keyboard configurable to multiple mappings.

- Stepita-Klauco; Mate (US 6340937 B1) : System and method for mapping multiple identical consecutive keystrokes to replacement characters.
- Natoli; Anthony James Franci (US 6388657 B1) : Virtual reality keyboard system and method.
- Paolini; Michael Anthon (US 6429793 B1) : Abstraction of input mapping for keyboards.
- Yang; Yongqi et al (US 6562078 B1) : Arrangement and method for inputting non-alphabetic language.
- Yoon; Hyoungso (US 7649478 B1) : Data entry using sequential keystrokes.
- Guthrie; Martin George Alber (US 7777725 B2) : System and method for associating characters to keys in a keypad in an electronic device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIALONG HE whose telephone number is (571) 270-5359. The examiner can normally be reached on Monday-Thursday, 7:00 - 4:30, Alt Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Wozniak can be reached on (571) 272-7632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James S. Wozniak/

Supervisory Patent Examiner, Art Unit 2626

/JH/